



***DARPA*Tech**

2002 Symposium

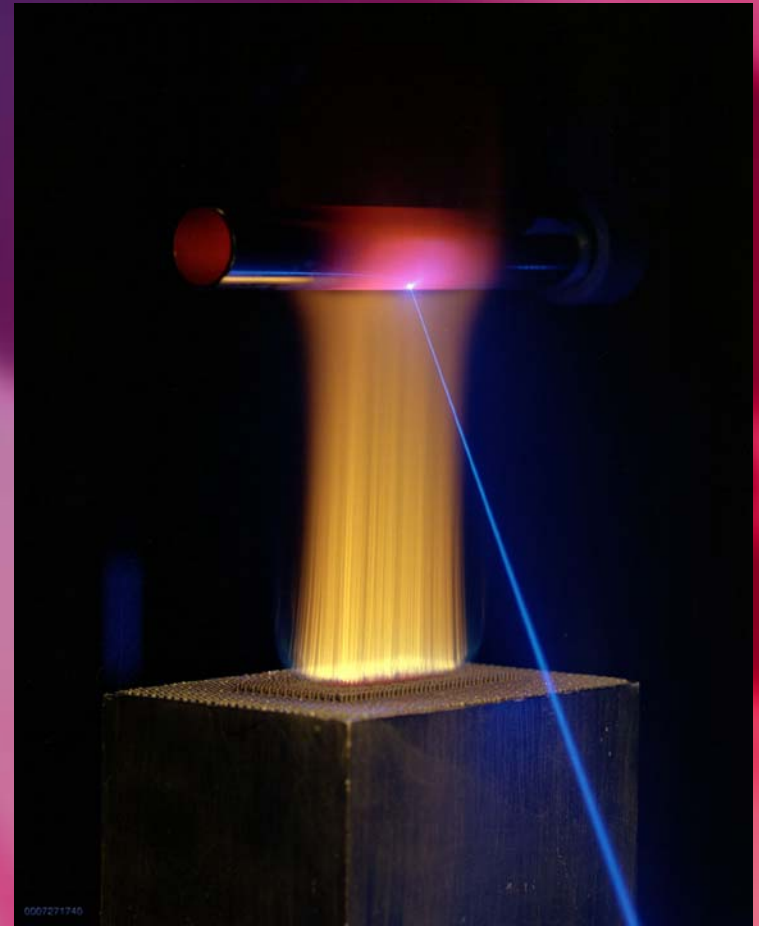
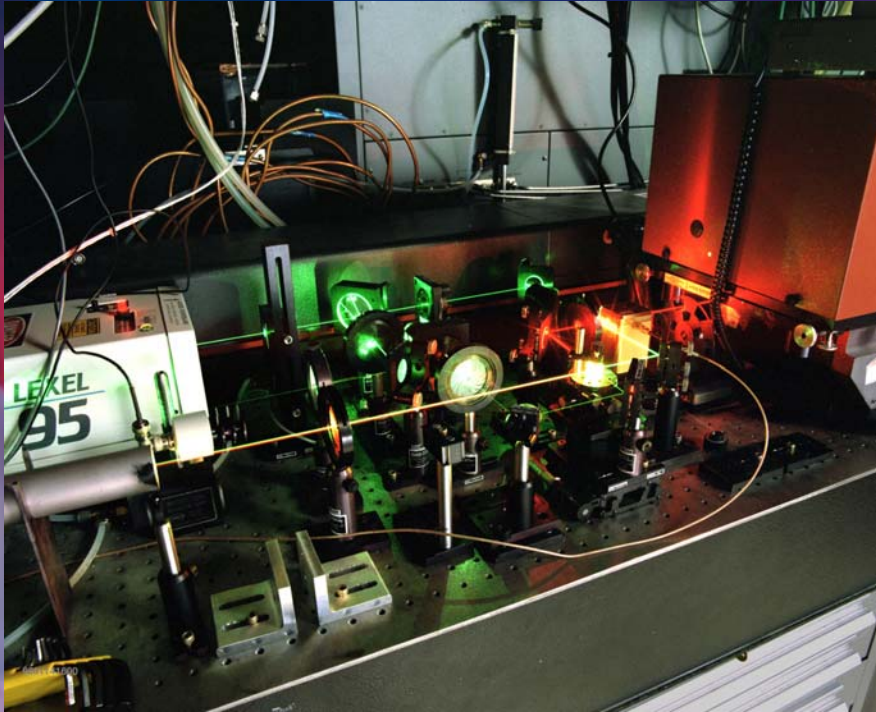
Transforming
Fantasy



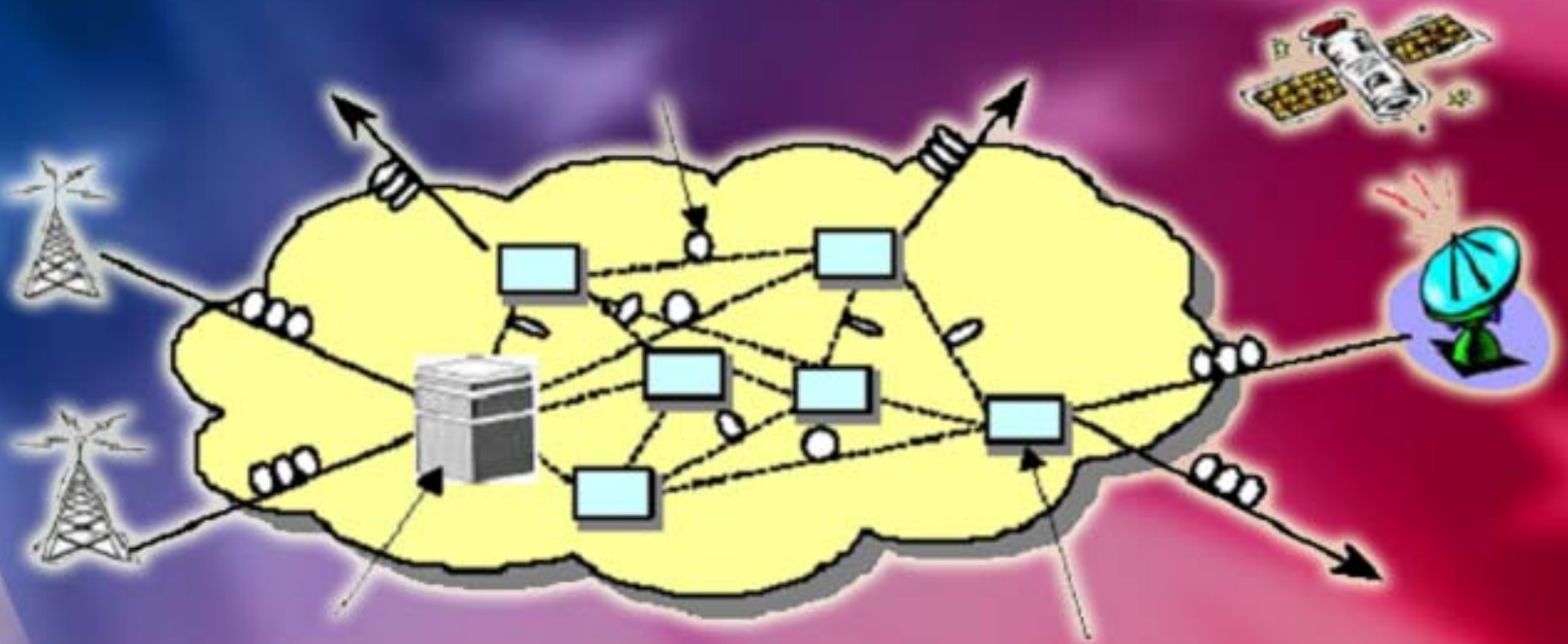
Dave Honey
Deputy Director
Microsystems
Technology Office



Lasers – Photonics' Best Known Devices



Commercial Fiberoptic Telecom



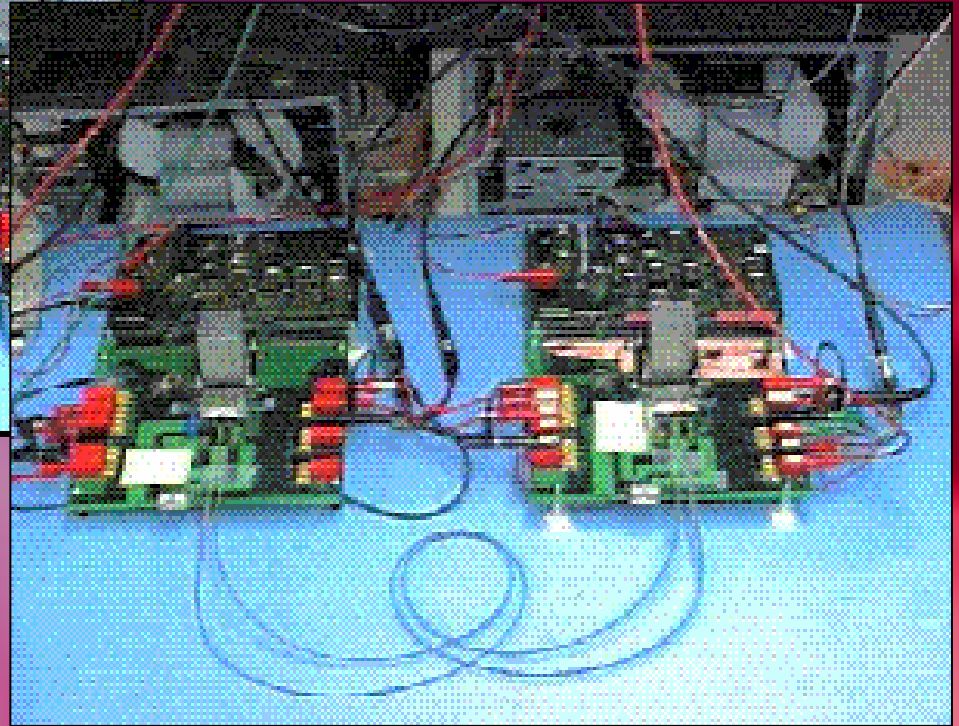
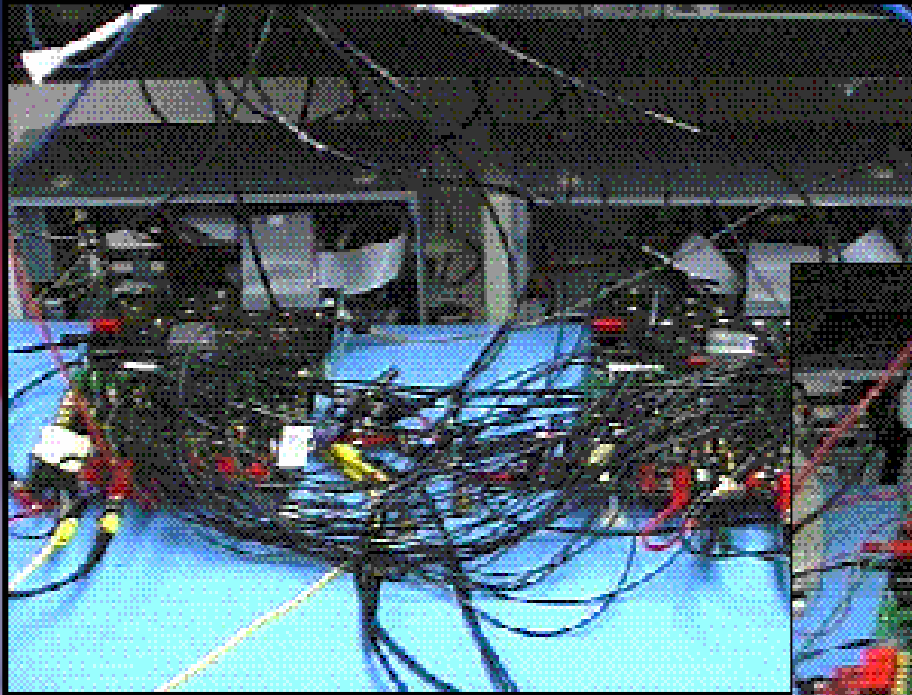
Laser Guided Weapons



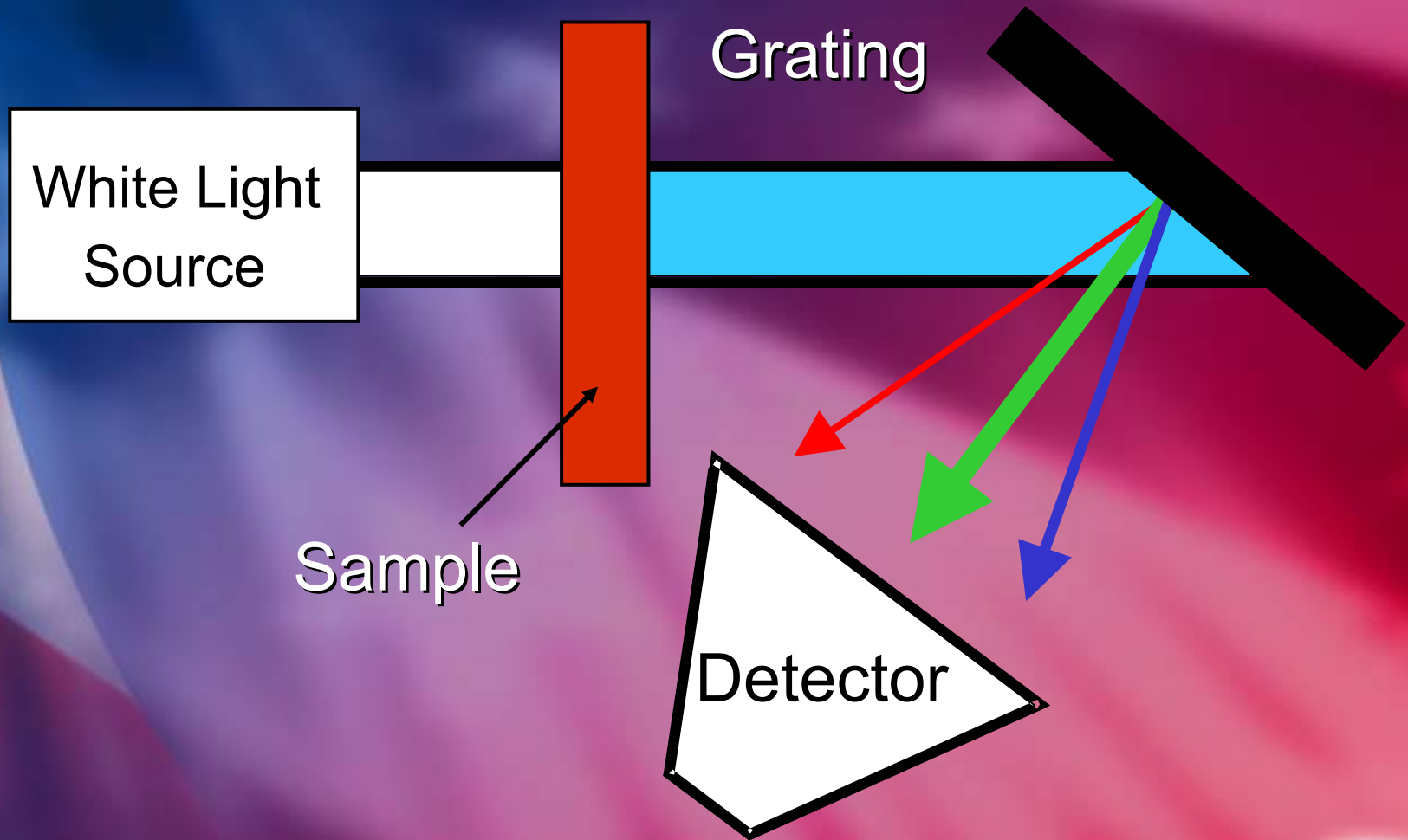
Night Vision Equipment for the Warfighter



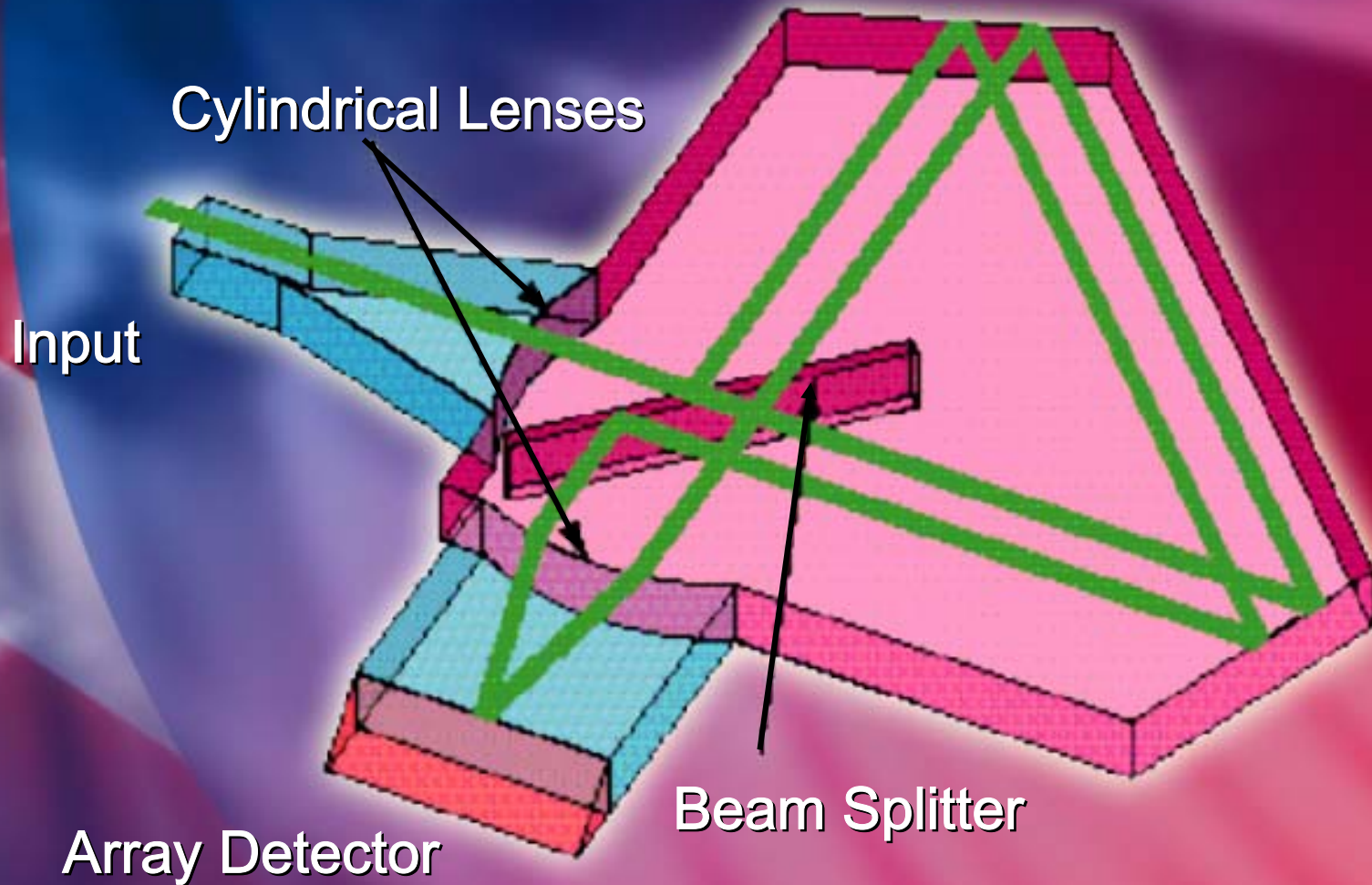
The Impact of Fiberoptics



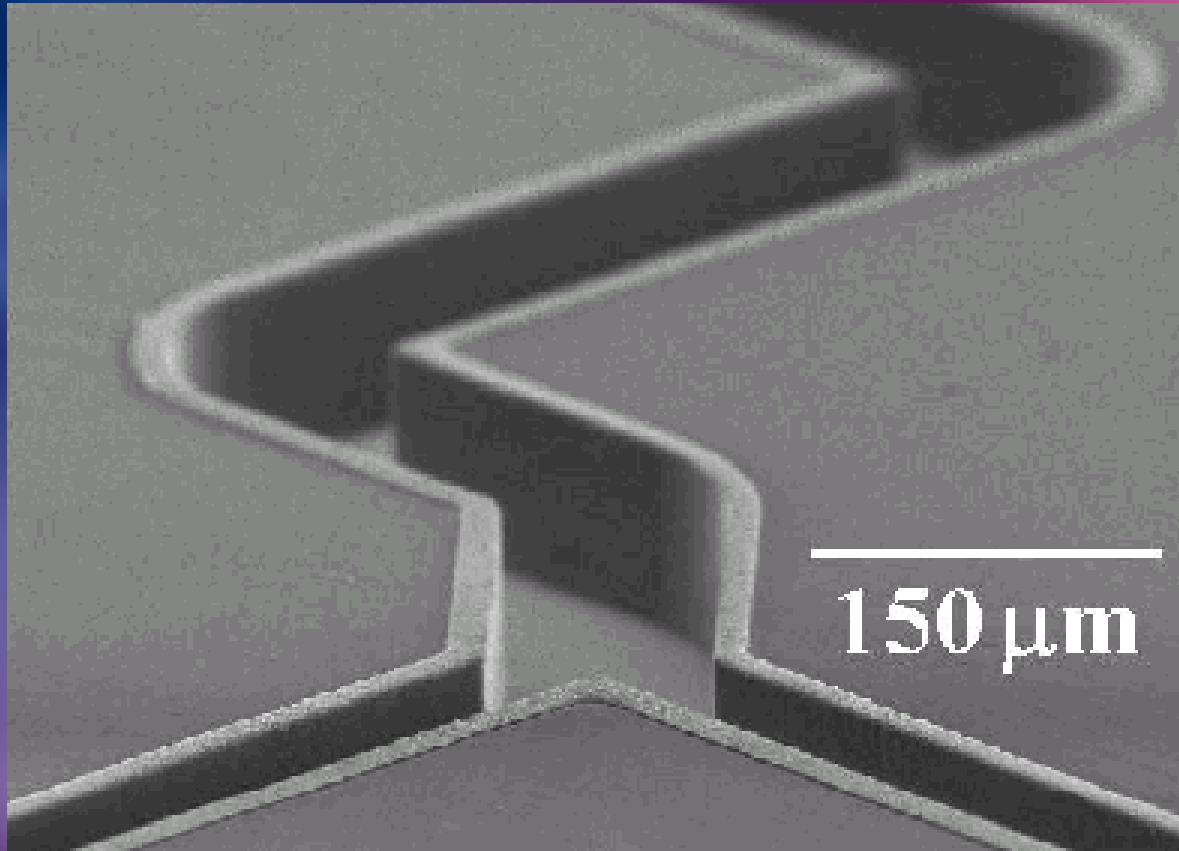
Conventional Spectrometer Setup



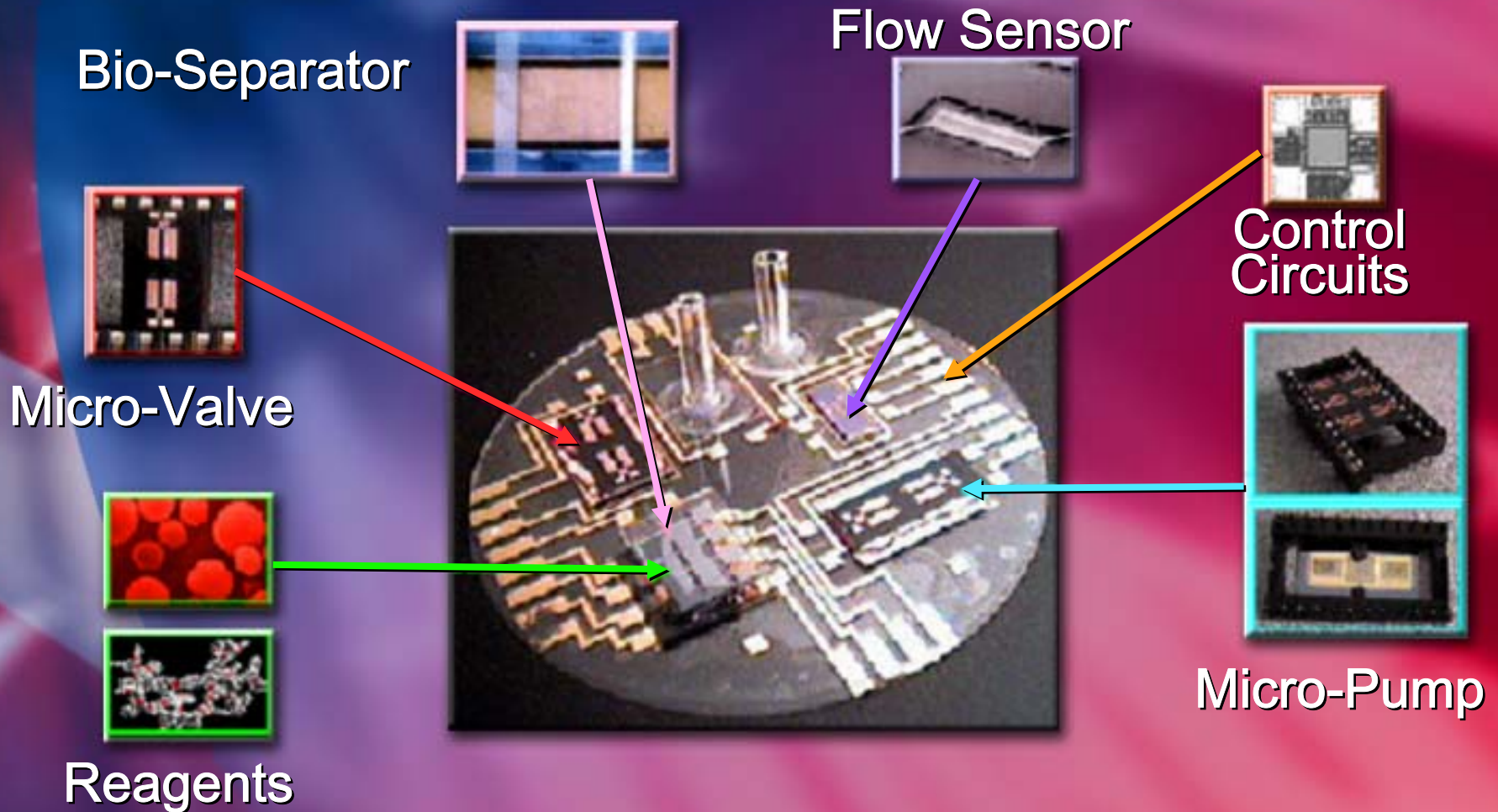
Spectrometer-on-a-Chip



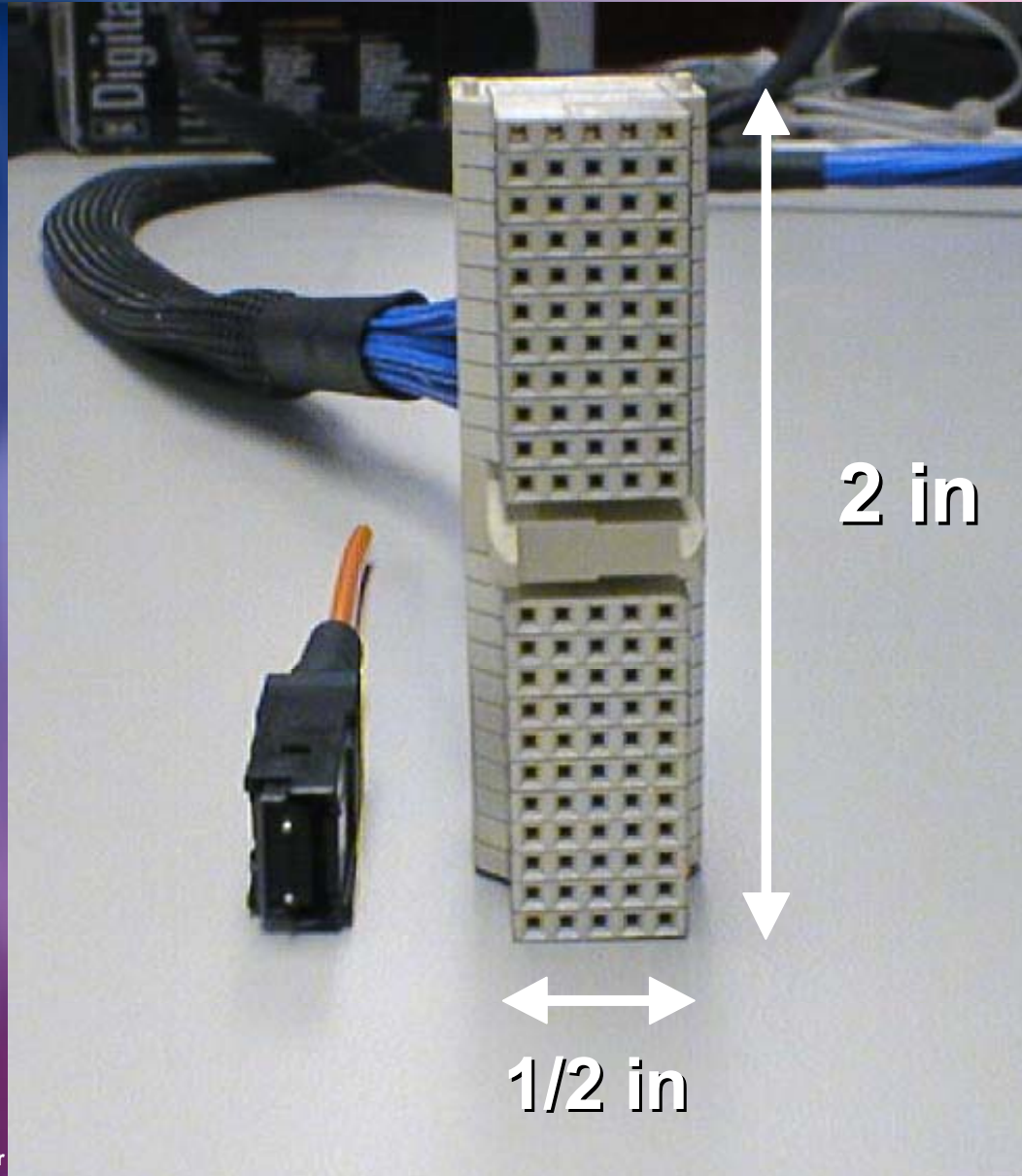
Microfluidic Transport Channel



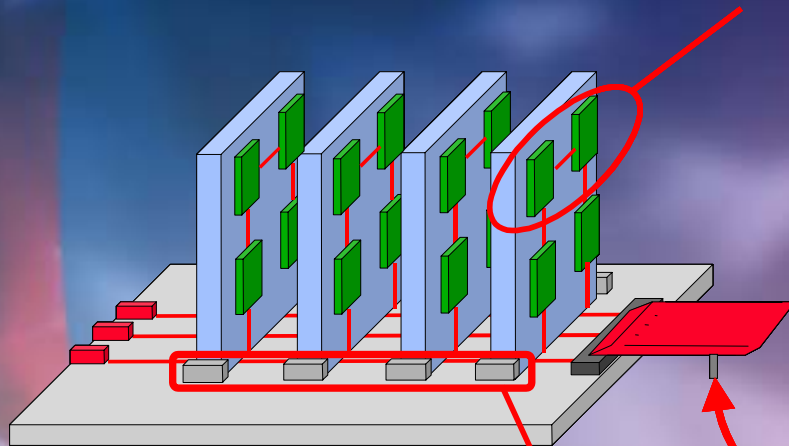
Laboratory-on-a-Chip



Fiberoptic vs. Electrical Box-to-Box Interconnects



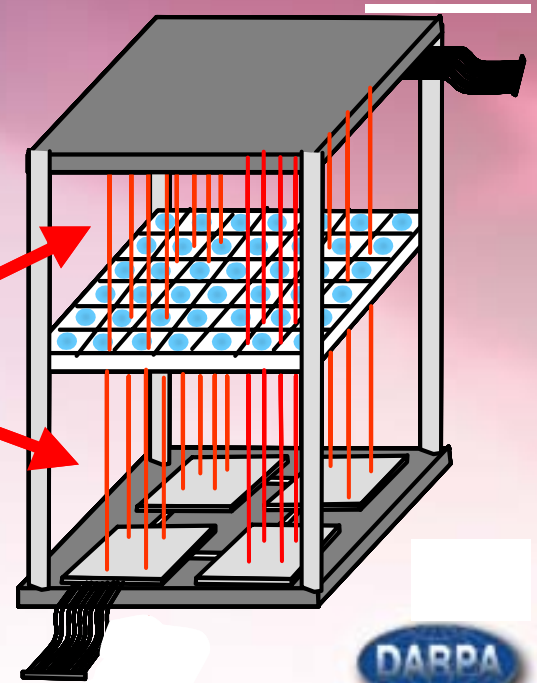
Board-Level Optical Waveguides



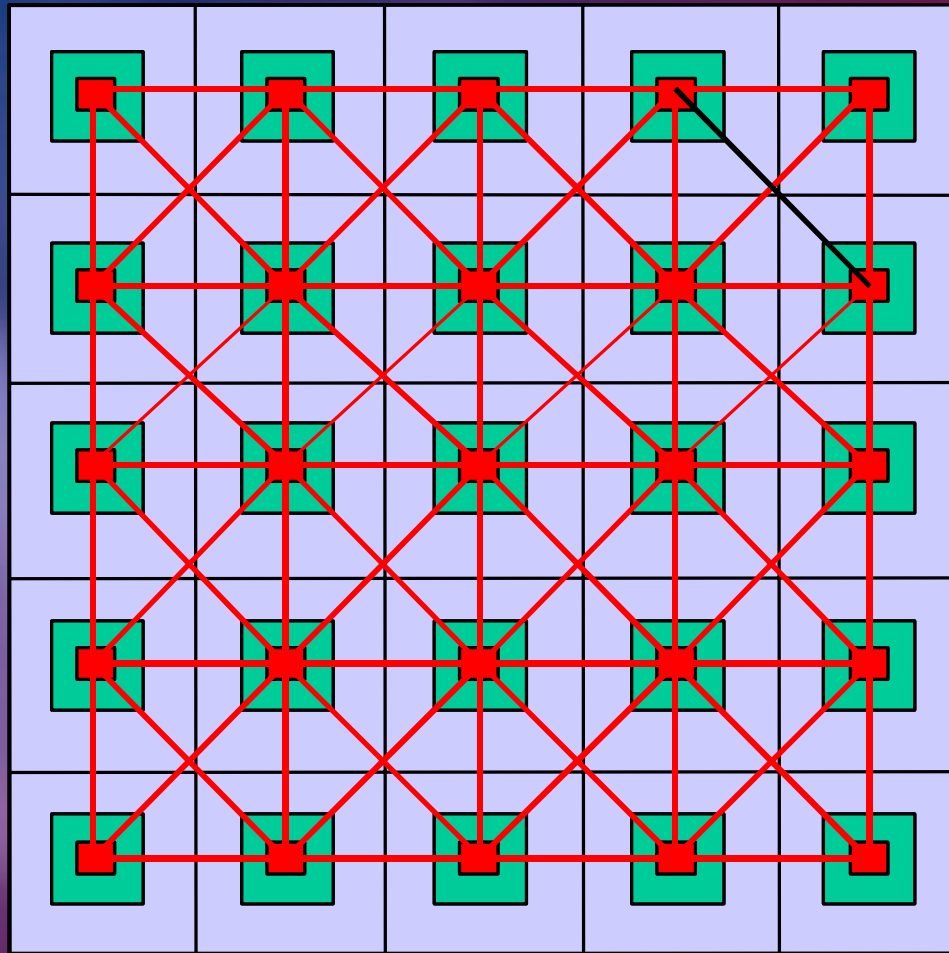
Backplane Optical Waveguides

Box-to-Box Fiberoptics

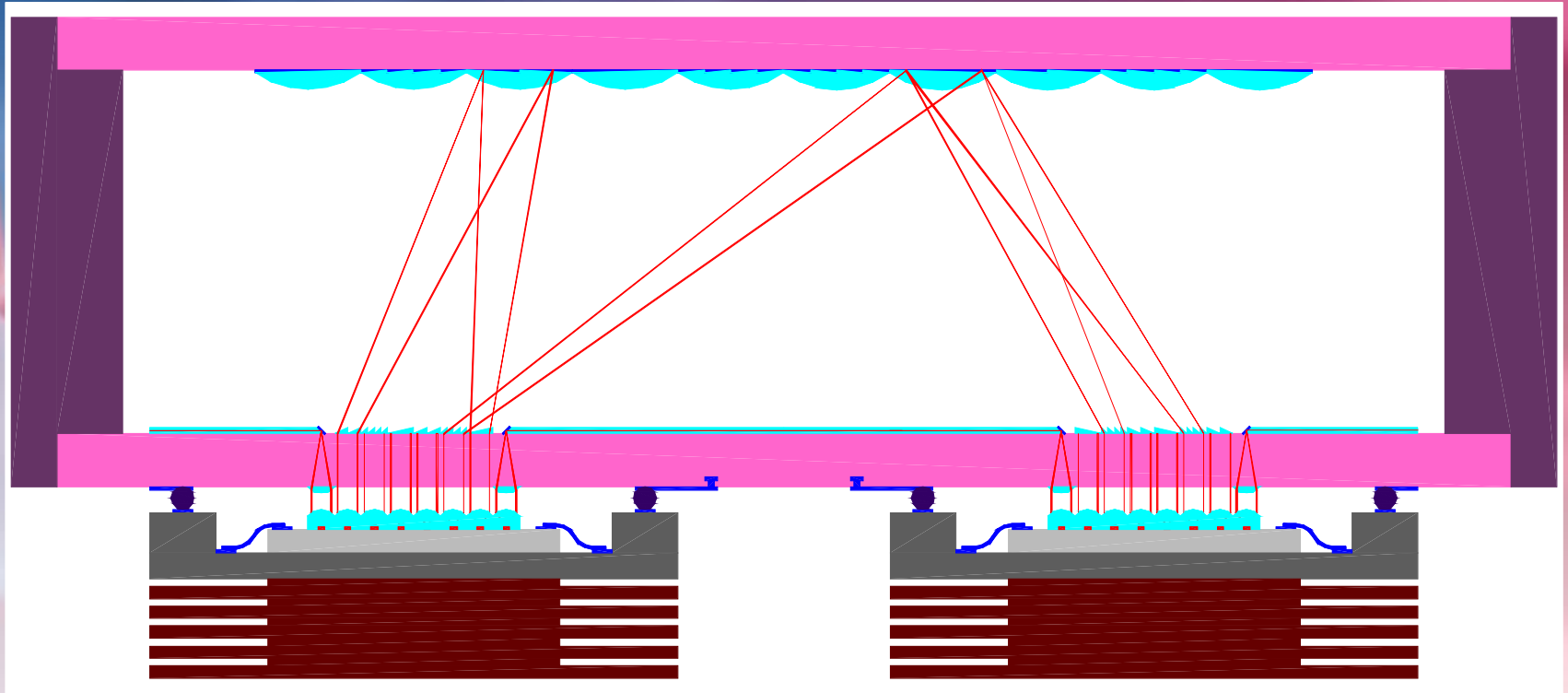
Board-to-Board Free Space Optical Links



Network-on-a-Chip Topology



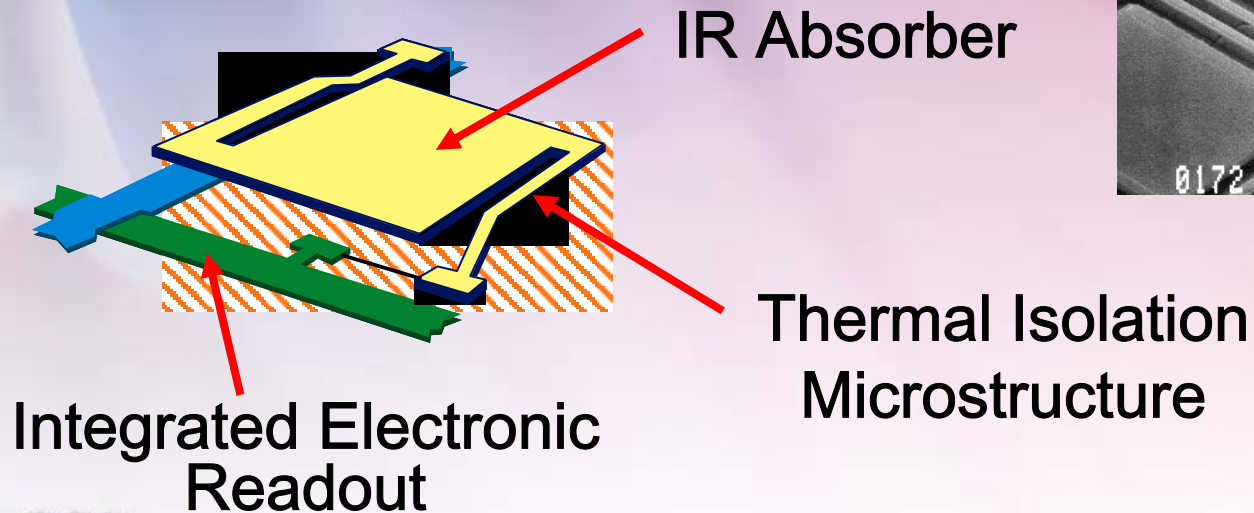
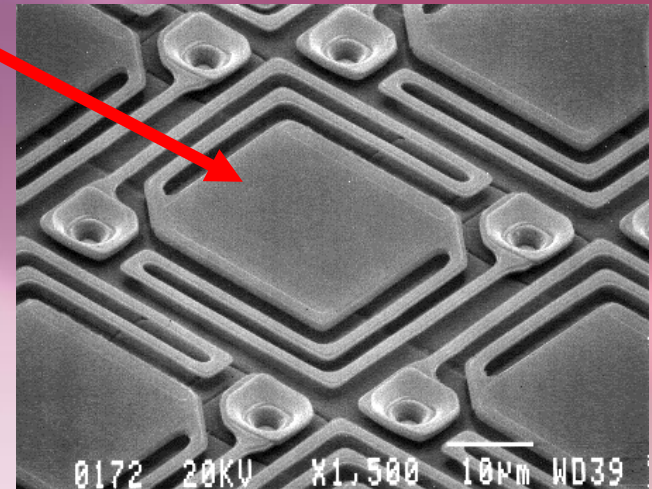
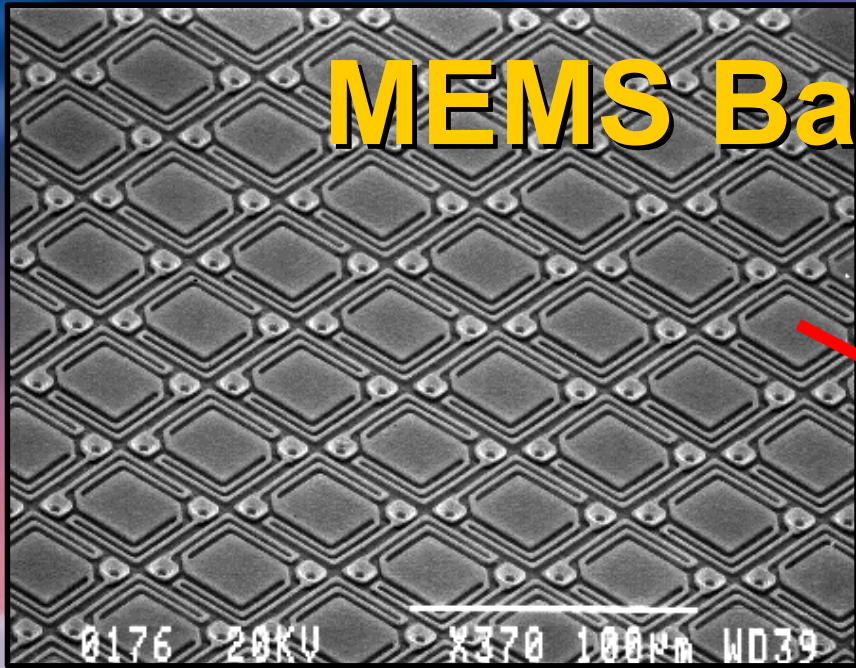
Photonics Based On-Chip Optical Interconnects



Uncooled IR Images



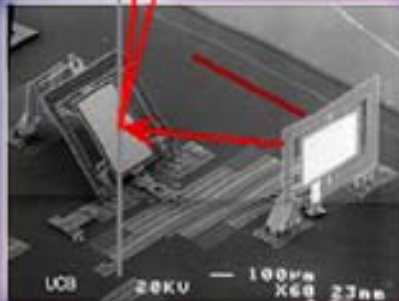
MEMS Based IR Detector



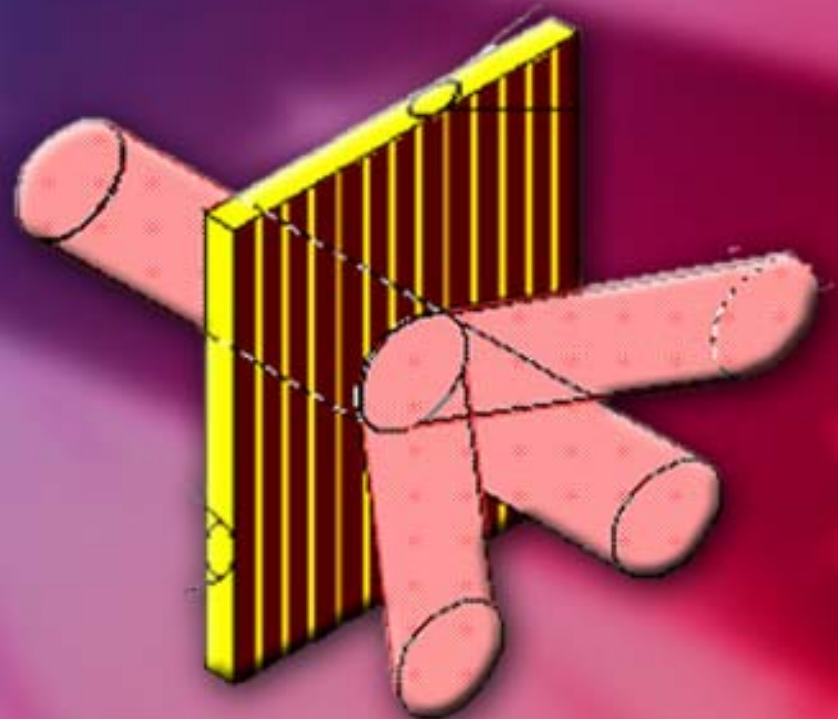
Gimbal Type Laser Beam Steering



Advanced Laser Beam Steering

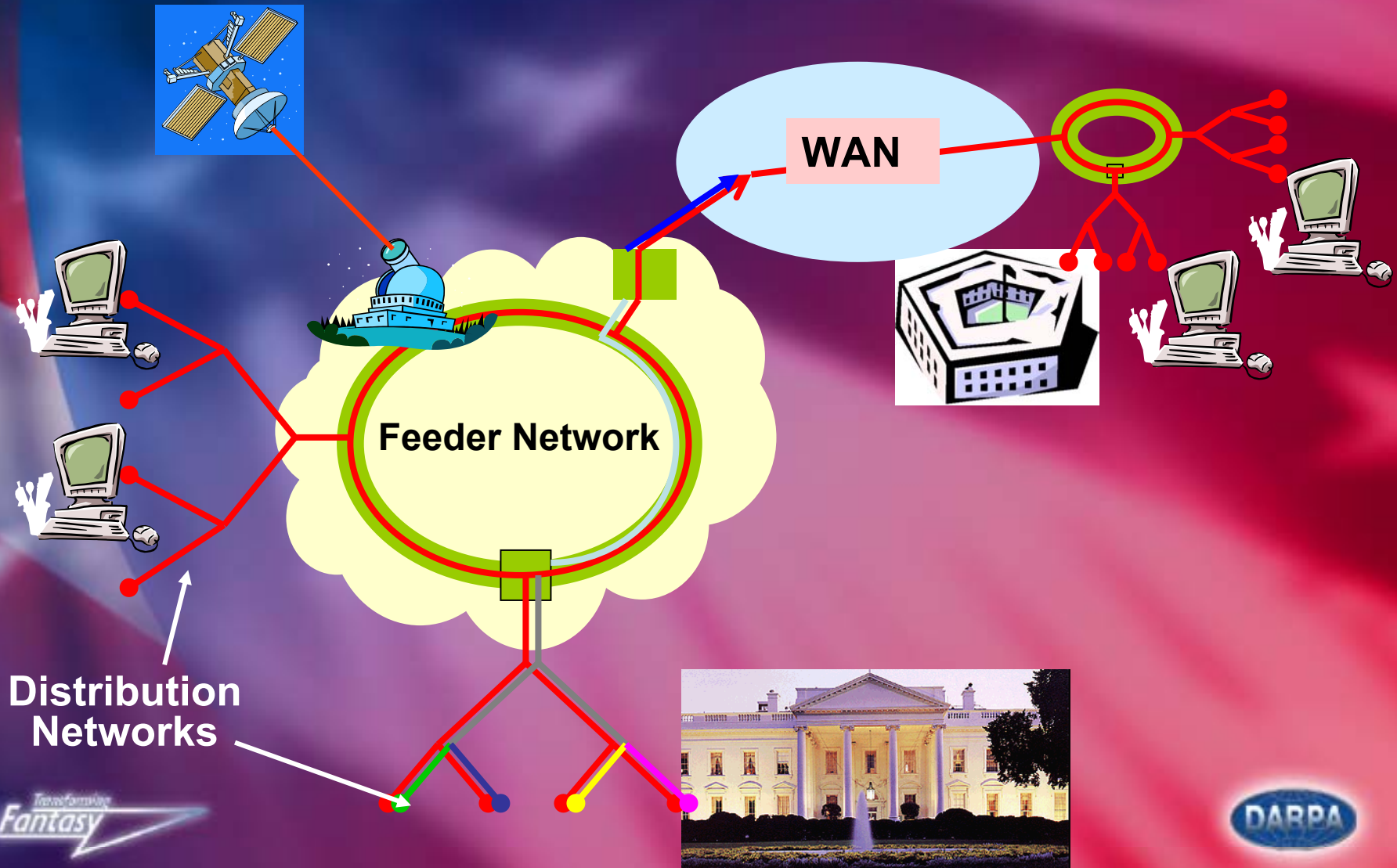


MEMS Beam Steering



Liquid Crystal
Beam Steering

High-Bandwidth CONUS Network





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